REMARKS

The claims in the application remain 1-20.

Favorable reconsideration of the application as amended is respectfully requested.

The amendments to Claims 1, 7 and 15 herein find clear support throughout the present application and drawing.

Claims 1-6, 8-10, 12 and 14-20 have been rejected under 35 U.S.C. §102 as being anticipated by EP 0650 929 to Sampson in paragraph 2 of the Office Action while Claim 7 has been rejected under 35 U.S.C. §103 as obvious additionally in view of U.S. Pat. Pub. No. 2005/0070840 to Matsumura et al in paragraph 5 of the Office Action and Claims 11 and 13 rejected as obvious additionally in view of JP59-092028 to Tokuyama in paragraph 6 of the Office Action. However, it is respectfully submitted the invention recited in all pending claims herein is patentable over the applied art for the following reasons (reference will be made to preferred embodiments of the present invention illustrated in the drawings of the present application).

The present invention improves production of hydrogen and/or oxyhydrogen gases in which the oxyhydrogen gas can be produced in the correct stoichiometric ratio for producing energy. The thus-produced gas preferably adheres to a substance, e.g., an ion exchanger. Unlike the prior art, a proton conductive membrane is not required in the present invention (the bottom of page 4 of the specification). Thus, it is possible to arrange the gas-adhering substance, e.g., the ion exchanger, in communication with both the anode and cathode in the electroytic liquid. In this regard, an electrically non-conductive ion exchanger is especially preferred.

Advantages provided by the presently claimed invention are documented in the comparative testing presented in the examples in the present application. More specifically, the comparative experiments presented in Examples 1-3 document improved efficiency in generating oxyhydrogen gas when incorporating ion exchanger as in the present invention.

The features of the presently claimed invention together with the accompanying advantages attained thereby are neither taught nor suggested by the applied art, for the following reasons.

Sampson is directed to oxidizing or reducing inorganic and organic pollutants from aqueous solutions and is not directed to generating hydrogen and/or oxyhydrogen gas *per se* (please see the amendment to independent Claims 1, 7 and 15 herein). Accordingly, Sampson fails to even recognize the problems encountered in generating hydrogen and/or oxyhydrogen gases which the present invention explicitly addresses.

Furthermore, the ion exchange materials disclosed in Sampson (page 5, lines 22-46) are all electrically-conductive. In contrast, important features of the present invention are (1) avoiding a membrane (as illustrated in Fig. 2 of Sampson) and (2) using an electrically non-conductive ion exchanger (the bottom of page 4 of the present application). Accordingly, attention is respectfully called to independent Claims 1, 7 and 15 which all recite, among other features, ion exchanger 10 is electrically-nonconductive (and with hydrogen and/or oxyhydrogen gase adhering thereto by ionic bonding and/or van der Waals forces being released in electrolysis) and situated directly between the cathode 6 and anode 7 without any intervening membrane.

Concerning Claim 7 (which has been amended into independent form), while Matsumura et al might disclose generating oxygen or hydrogen gas (paragraph [0180]), this reference discloses coating a conductive gel on the surface of an ion exchange membrane 23 (paragraph [0282] and Fig. 4), the exact opposite of the claimed features of the present invention pointed out *supra*. Accordingly, if

anything, the combination of Sampson with Matsumura et al would actually lead away from the present invention as recited in independent Claim 7.

With respect to Claims 11 and 13, the abstract of Tokuyama states the ion exchange resin particles in container 4 are floated by the rising stream of recirculating liquid (but not necessarily fluidized); the arrows in the figure denote recirculating fluid flow, and not movement of ion exchange resin which is retained in container 4. Accordingly, the "fluidization" of an ion exchanger is not taught in this reference. Therefore, Tokuyama adds nothing to Sampson which would render obvious the invention recited in Claims 11 or 13.

The remaining art of record has not been applied against the claims and will not be commented upon further at this time.

Accordingly, in view of the forgoing amendment and accompanying remarks, it is respectfully submitted all claims pending herein are in condition for allowance. Please contact the undersigned attorney should there by any questions.

Early favorable action is earnestly solicited.

Respectfully submitted,

George M. Kaplan
Reg. No. 28,375
Attorney for Applicant(s)

DILWORTH & BARRESE, LLP
1000 Woodbury Road, Suite 405
Woodbury, New York 11797
Phone: 516-228-8484
Facsimile: 516-228-8516